ors Corrected by the STIC System Branch **CRF Processing Date:** Edited by: Verified by: (STIC staff) Changed a file from non-ASCII to ASCII Changed the margins in cases where the sequence text was "wrapped" down to the next line. Edited a format error in the Current Application Data section, specifically: Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other Added the mandatory heading and subheadings for "Current Application Data". Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically: Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included: Deleted extra, invalid, headings used by an applicant, specifically: Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as___ Inserted mandatory headings, specifically: Corrected an obvious error in the response, specifically: Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically: A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted. Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a Patentin bug). Sequences corrected: Other:

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING PATENT APPLICATION US/09/466,778

DATE: 01/14/2000 TIME: 15:40:26

Input Set: I466778.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.



- 1 <110> APPLICANT: Hastings, Gregg et al.
- 2 <120> TITLE OF INVENTION: Novel Hyaluronan-Binding Proteins and Encoding Genes
- 3 <130> FILE REFERENCE: PF487
- 4 <140> CURRENT APPLICATION NUMBER: US/09/466,778
- 5 <141> CURRENT FILING DATE: 1999-12-20
- 6 <150> EARLIER APPLICATION NUMBER: 60/113,871
- 7 <151> EARLIER FILING DATE: 1998-12-23
- 8 <160> NUMBER OF SEQ ID NOS: 37
- 9 <170> SOFTWARE: PatentIn Ver. 2.0
- 10 <210> SEQ ID NO 1
- 11 <211> LENGTH: 6761
- 12 <212> TYPE: DNA
- 13 <213> ORGANISM: Homo sapiens
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- 16 <222> LOCATION: (170)..(6643)
- 17 <220> FEATURE:
- 18 <221> NAME/KEY: misc_feature
- 19 <222> LOCATION: (6342)
- 20 <223> OTHER INFORMATION: n equals a, t, g or c
- 21 <220> FEATURE:
- 22 <221> NAME/KEY: misc feature
- 23 <222> LOCATION: (6496)
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- 26 <221> NAME/KEY: misc_feature
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- 31 <222> LOCATION: (6535)
- 32 <223> OTHER INFORMATION: n equals a, t, g or c
- 33 <220> FEATURE:
- 34 <221> NAME/KEY: misc feature
- 35 <222> LOCATION: (6537)
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- 38 <221> NAME/KEY: misc_feature
- 39 <222> LOCATION: (6688)
- 40 <223> OTHER INFORMATION: n equals a, t, g or c
- 41 <220> FEATURE:
- 42 <221> NAME/KEY: misc feature
- 43 <222> LOCATION: (6724)
- 44 <223> OTHER INFORMATION: n equals a, t, g or c

PAGE: 2 RAW SEQUENCE LISTING DATE: 01/14/20
PATENT APPLICATION US/09/466,778 TIME: 15:40:26

Input Set: I466778.RAW

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53		FEATURE: NAME/KEY: misc feature																
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55																		
56		OTHER INFORMATION: n equals a, t, g or c SEQUENCE: 1																
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59 60			ggccacgcag acaggccggg tgttcctgca gctgagggtc gccgtggcc atg atg gac 178															
61		Met Met Asp															1/0	
62		met met Asp 1																
63		cag	ggc	tac	caa	gaa	atc	ctt	acc	aca	aca	aac	cct	ttc	acc	gtg	cta	226
64																Val	-	220
65			5	-1	5			10				1	15					
66		ata		tcc	atc	tcc	tcc		tcc	tcc	agg	acc		aat	qca	tcc	ctt	274
67					_								-		-	Ser		
68		20					25				_	30					35	
69		gcc	cag	cag	ctc	tgt	aga	cag	cac	atc	atc	gca	ggg	cag	cac	atc	ctg	322
70		Ala	Gln	Gln	Leu	Cys	Arg	Gln	His	Ile	Ile	Ala	Gly	Gln	His	Ile	Leu	
71						40					45					50		
72		gag	gac	aca	agg	acc	caa	caa	aca	cga	agg	tgg	tgg	acg	ctg	gcc	ggg	370
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74					55					60					65			
75		-				-						_				tac	_	418
76		Gln	Glu		Thr	Val	Thr	Phe		Gln	Phe	Thr	Lys	_	Ser	Tyr	Lys	
77				70					75					80				
78 70				_	_		_	_	-					_	_	aac		466
79 80		IYL	луs 85	Asp	GIII	PIO	GIII	90	THE	Pne	ASII	тте	_	гуя	Ата	Asn	ASII	
81		a t a		aat	22 +	~~~	a+ a		~~~	at a	at a	20+	95	ata	~~~	+~~	aaa	514
82										_				-		tgg Trp	_	314
83		100	nια	ALG	Pon	GLY	105	FIIC	1113	vai	vai	110	Gry	neu	n. 9	יניי	115	
84			ccc	tat	aaa	acc		aaa	gat	ccc	ааσ		act	atc	gga	cag		562
85																Gln		502
86					2	120		,			125	5			1	130		
87		ctc	gcc	tct	acc		qcc	ttc	agc	cqc		gaa	acc	atc	ctq	gag	aac	610
88																Glu		
89					135					140					145			
90		tgt	ggg	ctg	ccc	tcc	atc	ctg	gac	gga	cct	999	ccc	ttc	aca	gtc	ttt	658
91		Cys	Gly	Leu	Pro	Ser	Ile	Leu	Asp	Gly	Pro	Gly	Pro	Phe	Thr	Val	Phe	
92				150					155					160				
93																ctg		706
94		Ala	Pro	Ser	Asn	Glu	Ala	Val	Asp	Ser	Leu	Arg	Asp	Gly	Arg	Leu	Ile	

DATE: 01/14/2000 TIME: 15:40:26 RAW SEQUENCE LISTING PAGE: 3

PATENT APPLICATION US/09/466,778

Input Set: I466778.RAW

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97										_					Arg		
98	180					185			-		190					195	
99	cac	atc	tac	aac	cac	ggc	cag	ctg	acc	gtt	gag	aag	ctc	atc	tcc	aag	802
100															Ser		
101			_		200	_				205					210		
102	ggt	cgg	atc	ctc	acc	atg	gcg	aac	cag	gtc	ctg	gct	gtg	aac	att	tct	850
103	Gly	Arg	Ile	Leu	Thr	Met	Ala	Asn	Gln	Val	Leu	Ala	Val	Asn	Ile	Ser	
104				215					220					225			
105	gag	gag	ggg	cgc	atc	ctg	ctg	gga	ccc	gag	ggg	gtc	ccg	ctg	cag	agg	898
106	Glu	Glu	Gly	Arg	Ile	Leu	Leu	Gly	Pro	Glu	Gly	Val	Pro	Leu	${\tt Gln}$	Arg	
107			230					235					240				
108	gta	gac	gtg	atg	gcc	gcc	aat	ggc	gtg	atc	cac	atg	ctg	gac	ggc	atc	946
109	Val	Asp	Val	Met	Ala	Ala	Asn	Gly	Val	Ile	His	Met	Leu	Asp	Gly	Ile	
110		245					250					255					
111	ctg	ctg	CCC	ccg	acc	atc	ctg	ccc	atc	ctg	ccc	aag	cac	tgc	agc	gag	994
112	Leu	Leu	Pro	Pro	Thr	Ile	Leu	Pro	Ile	Leu	Pro	Lys	His	Cys	Ser	Glu	
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114	gag	cag	cac	aag	att	gtg	gcg	ggc	tcc	tgt	gtg	gac	tgc	caa	gcc	ctg	1042
115	Glu	Gln	His	Lys	Ile	Val	Ala	Gly	Ser	Cys	Val	Asp	Cys	Gln	Ala	Leu	
116					280					285					290		
117															ttc		1090
118	Asn	Thr	Ser	Thr	Cys	Pro	Pro	Asn	Ser	Val	Lys	Leu	Asp		Phe	Pro	
119				295					300					305			
120			-	_				_		_					cta	_	1138
121	Lys	Glu	Cys	Val	Tyr	Ile	His	_	Pro	Thr	Gly	Leu		Val	Leu	Lys	
122			310					315					320				
123			_	_	-		_					_			ggc	-	1186
124	Lys	_	Cys	Ala	Ser	Tyr		Asn	GIn	Thr	Ile		Glu	GIn	Gly	Cys	
125		325					330					335					
126	_														ggc		1234
127	_	Lys	GTA	Phe	Phe	_	Pro	Asp	Cys	Thr		Cys	Pro	GIA	Gly		
128	340					345					350					355	1000
129															cag		1282
130	ser	ASI	Pro	Cys	-	GIY	ьуѕ	GIY	ASII	365	ser	Asp	GIY	TIE	Gln 370	GIY	
131		~~~	~~~		360	t ~ ~	++~	a aa	~~~		224	aaa	2+4	~~~	-	asa	1330
132			_	_		-			_		_				tgc Cys		1330
133	ASII	GIY	AIA		пеп	Cys	PILE	PIO	380	TYL	шуэ	Gry		385	Cys	ure	
134 135	ato	taa	taa	375	002	220	220	cat		aaa	C22	tac			gac	tac	1378
136															Asp		1370
137	116	Суб	390	Hon	FIO	No11	БУS	395	GLY	GIU	0111	Cys	400	Gra	пор	Cys	
138	aac	tat		cat	aat	ctc	tac		aac	cac	cca	aac		aaa	ggg	ata	1426
139															Gly		
140	C±y	405			1		410	E		9		415		1	1		
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142															Cys		· -
143	420			1		425			,		430	1	3		- 4	435	
144		tcc	atq	gaa	qac		qaa	ccc	aca	qaa		gcc	caq	cac	tgc		1522
	343		3	223	JC	- 3 -	233			تدر	ر	J			- J -		

PAGE: 4 RAW SEQUENCE LISTING DATE: 01/14/2000

PATENT APPLICATION US/09/466,778 TIME: 15:40:26

Input Set: I466778.RAW

		_			_	_					_			1	_		
145	Glu	ser	met	GIY	_	Cys	GTA	Pro	Tnr	_	Leu	Ala	Gin	His	-	His	
146			~~~	~~~	440	~++			~~~	445		~~~			450	.	1550
147											gtt Val						1570
148 149	neu	птэ	Ата	455	Cys	vai	Set	GIII	460	GIY	vaı	AIA	Arg	465	Arg	Cys	
150	a++	an t	~~~		~~~	aa+	~a+	~~~		+ ~ ~	taa	242	aat		224	~~~	1610
151											tgc			-			1618
152	neu	Asp	470	FIIE	Giu	GIY	Asp	475	PILE	ser	Cys	1111	480	ser	ASII	PIO	
153	tac	taa		cca	asc.	cat	aa a		tac	tas	gag	22+		~~~	+~+	ata	1666
154											Glu				_	_	1000
155	Cys	485	1113	110	rap	ALG	490	GLY	Cys	561	Giu	495	ALG	Giu	Cys	vaı	
156	cct		taa	cta	aac	acc		cac	tac	aca	tgc		222	aac	taa	agt	1714
157											Cys						1/14
158	500	,	DC1	cu	0-7	505		*****	Cyb		510		Lyb	O _T y	112	515	
159		gat	aac	cac	atc		ata	act	att	gac	gag	tat	σασ	cta	gac		1762
160		-	-	_	_	_	_	_		_	Glu	_			_		2702
161	1		U-1	3	520	07.2				525		0,0			530		
162	aga	aat	aac	tac		acc	gat	acc	ctc		agc	tat	ata	aac		aaa	1810
163											Ser						
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165	caq	agc	cga	tac	acc	tac	aaq	cta	aac	ttt	gcc	aaa	gat	aac	tac	cag	1858
166											Ala					_	
167			550	•		•	•	555	•			-	560	-	•		
168	tgc	agc	ccc	atc	gac	ccc	tgc	cgg	gca	ggc	aat	qqc	qqc	tgc	cac	qqc	1906
169											Asn						
170	-	565			_		570	_		_		575	_	-		-	
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177											agc						2050
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181	Phe	Trp		Gln	Pro	Arg	Thr		Pro	Asn	Leu	Val		Ala	His	Phe	
182			630					635					640				
183											gcc						2146 .
184	Leu		GTĀ	Ala	Leu	Phe		GLu	Glu	Leu	Ala	-	Leu	Gly	Gly	Gln	
185		645					650					655					
186											tgg -						2194
187		val	Ата	rnr	ren		Pro	Tnr	Thr	arg	Trp	GTI	тте	Arg	Asn		
188	660				.	665					670					675	0040
189											gtg						2242
190 191	ser	GTÀ	Arg	val	1TP	val	GIII	АЅП	Ата		Val	Asp	val	ΑΙΑ	_	ьeu	
191	att	aca	200	227		at a	at a	a= a	250	685 ctc	agc	~ ~	ata	++-	690	aac	2200
193											Ser						2290
194	Lieu	nia	TIIT	695	дтÃ	Val	⊒∈u	1379	700	חבת	GET	GTII	val	705	חבת	5TO	
/				575					, 50					/03			

PAGE: 5 RAW SEQUENCE LISTING DATE: 01/14/2000 PATENT APPLICATION US/09/466,778 TIME: 15:40:26

Input Set: I466778.RAW

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198											ttg						2386
199	Leu	Val	Pro	Ala	Phe	Ser	Leu	Phe	Arg	Glu	Leu	Leu	Gln	His	Hìs	Gly	
200		725					730					735					
201											tac						2434
202	Leu	Val	Pro	Gln	Ile	Glu	Ala	Ala	Thr	Ala	Tyr	Thr	Ile	Phe	Val	Pro	
203	7.40					745					750					755	
204											agc						2482
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206					760					765					770		
207											gag						2530
208	Asp	Thr	Val	Arg	His	His	Val	Val	Leu	Gly	Glu	Ala	Leu		Met	Glu	
209				775					780					785			
210											ctc						2578
211	Thr	Leu	Arg	Lys	Gly	Gly	His		Asn	Ser	Leu	Leu		Pro	Ala	His	
212			790					795					800				
213											cct						2626
214	Trp		Val	Phe	Tyr	Asn		Ser	Gly	Gln	Pro		Val	Asn	His	Val	
215		805					810					815					
216											ggc						2674
217		Leu	Glu	Gly	Pro		Leu	Glu	Ala	Pro	Gly	Arg	Ser	Leu	Ile		
218	820					825					830					835	
219											cgc						2722
220	Leu	Ser	Gly	Val		Thr	Val	Gly	Ser		Arg	Cys	Leu	His		His	
221					840					845					850		
222											tgc						2770
223	Ala	Glu	Ala		Arg	Glu	ГÀЗ	Cys		Asn	Cys	Thr	Arg		Phe	Arg	
224				855					860					865			2010
225											ccc						2818
226	Cys	Thr		GTA	Pne	GIn	Leu		Asp	Thr	Pro	Arg		ser	Cys	Val	
227			870					875					880		A 4-		2000
228											tgc						2866
229	Tyr	-	Ser	GIĀ	Pne	ser		ser	Arg	GIA	Cys		Tyr	THE	Cys	Ala	
230		885	_ 4				890				~~+	895		~~~	200	ata	2914
231											ggt						2314
232	_	ьys	TIE	GIN	vaı		Asp	cys	cys	PIO	Gly	Pne	rne	GIY	1111		
233	900					905	~~+	a+ >	~~~	~~~	910	+ ~ ~	+ 42	~~~	ast	915	2962
234											gtg Val						2302
235	Cys	GIU	Pro	Cys	920	GTÀ	GIY	пец	GLY	925	Val	Cys	ser	GIY	930	GIA	
236	~~~	F~~	~~~	~~~		++~	ata	~~~	200		asa.	taa	cac	tac		αaα	3010
237											gag Glu						3010
238	GTU	Cys	GIII	935	wrd	FIIC	neu	GIY	940	GIY	GIU	Cys	1113	945	1113	JIU	
239	~~~	++~	an+		200	~~~	+~+	asa.		tat	gag	ata	aaa		tac	aaa	3058
240											Glu						5550
241 242	GTÀ	rue	950	GTĀ	TIIL	VIG	Cys	955	val	Cys	GIU	Leu	960	ar 9	- Y -	O-y	
242	ccc	220		acc	aus	ata	tat		tat	acc	cat	ggg		tac	cao	gag	3106
243											His						
lease Note:	ELU		Cys		~~y	- 41	-,5		-,-			1	~	-, -			

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

6

VERIFICATION SUMMARY PATENT APPLICATION US/09/466,778

DATE: 01/14/2000 TIME: 15:40:26

Input Set: I466778.RAW

Line ? Error/Warning Original Text

447 W "N" or "Xaa" used: Feature required 456 W "N" or "Xaa" used: Feature required 459 W "N" or "Xaa" used: Feature required 468 W "N" or "Xaa" used: Feature required 469 W "N" or "Xaa" used: Feature required 731 W "N" or "Xaa" used: Feature required 737 W "N" or "Xaa" used: Feature required 739 W "N" or "Xaa" used: Feature required 889 W "N" or "Xaa" used: Feature required 901 W "N" or "Xaa" used: Feature required 910 W "N" or "Xaa" used: Feature required 912 W Invalid/Missing Amino Acid Numbering 913 W "N" or "Xaa" used: Feature required 964 W "N" or "Xaa" used: Feature required 970 W "N" or "Xaa" used: Feature required 972 W "N" or "Xaa" used: Feature required 1056 W "N" or "Xaa" used: Feature required 1064 W "N" or "Xaa" used: Feature required 1082 W "N" or "Xaa" used: Feature required 1085 W "N" or "Xaa" used: Feature required 1106 W "N" or "Xaa" used: Feature required 1109 W "N" or "Xaa" used: Feature required 1123 W "N" or "Xaa" used: Feature required 1135 W "N" or "Xaa" used: Feature required 1137 W "N" or "Xaa" used: Feature required 1151 W "N" or "Xaa" used: Feature required 1153 W "N" or "Xaa" used: Feature required 1279 W "N" or "Xaa" used: Feature required 1291 W "N" or "Xaa" used: Feature required 1300 W "N" or "Xaa" used: Feature required 1318 W "N" or "Xaa" used: Feature required 1321 W "N" or "Xaa" used: Feature required 1327 W "N" or "Xaa" used: Feature required 1345 W "N" or "Xaa" used: Feature required 1353 W "N" or "Xaa" used: Feature required 1361 W "N" or "Xaa" used: Feature required 1371 W "N" or "Xaa" used: Feature required 1373 W "N" or "Xaa" used: Feature required 1375 W "N" or "Xaa" used: Feature required 1377 W "N" or "Xaa" used: Feature required 1460 W "N" or "Xaa" used: Feature required 1476 W "N" or "Xaa" used: Feature required 1516 W "N" or "Xaa" used: Feature required 1531 W "N" or "Xaa" used: Feature required 1571 W "N" or "Xaa" used: Feature required

1587 W "N" or "Xaa" used: Feature required

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RAW SEQUENCE LISTING

PATENT APPLICATION US/09/466,778

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RAW SEQUENCE LISTING

DATE: 01/13/2000 TIME: 15:02:11

PATENT APPLICATION US/09/466,778

Input Set: 1466778.RAW

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- <120> Novel Hyaluronan-Binding Proteins and Encoding Genes
- 3 <130> PF487
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- 5 <141> 1999-12-20
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VERIFICATION SUMMARY
PATENT APPLICATION US/09/466,778

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